Quality Assessment Of Silicon Wafers After Magnetic Abrasive Process

G. Kremen , L. Igelshteyn, S. Feygen, S. McSpadden, B. Jianming, and T. Watkins (Scientific Manufacturing Technologies Inc.)

Abstract No. Krem1041 Beamline(s): **X14A**

Here we present the magnetic abrasive process, which is used for machining of prime silicon wafers, and removing the films from reclaim silicon wafers. The process is proved to be very effective in achieving the desired surface texture and perfection of the lattice in the crystal, results received after experimentation on the Synchrotron at Brookhaven Laboratory. The perfection of the lattice is the same after Magnetic Abrasive Process (MAP) and the Chemical Mechanical Polishing. MAP allows us to remove films from reclaim wafers without touching the silicon. With the help of MAP we can multiply reclaim wafers tens times.